

REMARKS

Pending in this Application are Claims 55-60. Claims 16-28, 44-54 and 61 are allowed, Claim 55 is amended and Claims 1-15, 29-43, and 62 are cancelled without prejudice and are the subject of currently pending divisional patent applications.

Rejections Under 35 U.S.C. 103(a)

Claims 55 and 60

Claims 55 and 60 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lakhani (US 5,539,880) in view of Hwang (US 6,049,823).

The Examiner states, “ Regarding claim 55 and 60, Lakhani discloses (Abstract, Fig. 2, col. 2, line 2-45) a CATV multimedia workstation network wherein the architecture includes a plurality of workstations (set top units/terminals) that are interconnected via a ring configuration, the computer workstations decode demodulated signals into picture, audio, and data signals, (col. 4, line 9-63, col. 5, line 15-67) networks exist on the same looped cable (multi-access channel), workstations include peripheral devices and there associated interfaces (printers, mouse, keyboard, etc.), a central control center comprising of microcomputer (micro-controller) whereby the control center may include storage with a mini computer system, and cable ring associated with frequency band segments. Lakhani is silent on each workstation containing a micro-controller in a CATV environment. In analogous art, Hwang discloses (Abstract, col. 8, line 31-67) a CATV environment, multi-media on-demand work group, iTVpanel that consists of a PC-based or micro-controller-based set-top box and that interfaces host processor via attached devices (peripherals), (col. 9, line 22 – col. 10, line 46, col. 19, line 5-40) cable

segments, and a plurality C-iTVpanles (set-top box). Therefore, it would have been obvious to one of ordinary skill in the arts at the time of the invention to be motivated to implement a micro-controller with each set-top box as taught by Hwang in his CATV environment with the teachings of Lakhani for the purpose of allowing each workstation/set-top box the ability to control its workstation routing and obtaining services without the stress of a central control center that handles the monitoring of all workstation/set-top boxes.”

Currently amended claim 55 claims a plurality of set-top box circuits each comprising: a microcontroller containing memory; and a peripheral device interface operably coupled to a plurality of peripheral devices adapted to process data bandwidth segments, wherein each of the set-top box circuits are digitally operably coupled, in a ring network configuration, to a multi access channel.

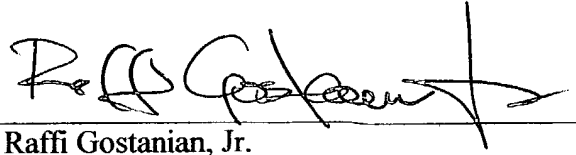
In both the Lakhani and Hwang patents, an *analog television protocol* on a coaxial cable is utilized. This is an RF format, using frequency division, where the in-bandwidth frequency spectrum of the coaxial transmission carrier is divided into various channels separated by some blank frequency for channel isolation, so as to prevent noise between channels. These base-band frequency channels are aligned with the television *analog* tuner that isolates these channels for display of that channel. The Lakhani patent in column 4 discusses communications between stations whereby one of these channels is used as the carrier for the communications between two of these stations. The problem with this configuration is that if a telephone conversation occurs, a small percentage (approximately 1/1500) of this circuit is all that is required. As such, most of the available bandwidth is not utilized.

The Lakhani patent is steeped in legacy infrastructure (RF frequency division multiplexing). Conversely, using the photonic transmission medium (fiber) of the present invention, the modulation is on-off keying lending itself to *digital carrier modulations*. For this reason, digital transmission is a preferred transmission medium of the present invention. Creating an analog signal on a photonic medium takes many more steps than those necessary for creating a digital modulation. As such, *the present invention employs a digital modulation technique in place of the RF modulation schemes presently in use*. One of the big limitations associated with the telephone infrastructure was the transitioning of all the RF modulations to a digital modulation transmitting on fiber infrastructure and then transitioning those digital formats back to analog for the “last mile.” *The present invention does not transition that modulation from digital. For example, the set top box of the present invention creates the digital format, which remains in that format end-to-end.*

For the aforementioned reasons, Applicant’s believe amended Claim 55 is in condition for allowance and respectfully request it be passed to allowance. Since Claim 60 depends on Claim 55, which the Applicant’s believe is in condition for allowance, Applicant’s believe Claim 60 is in condition for allowance and respectfully request it be passed to allowance.

If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner’s Amendment where possible.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Raffi Gostanian, Jr.", written over a horizontal line.

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